

COST

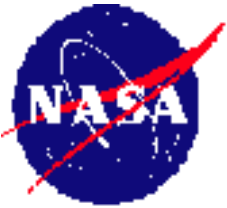
ESSP Pre-Proposal Conference

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Why Worry About Cost At Step One?

NASA needs to be able to make independent assessments of the Cost Risk and the Cost Realism of each project to lessen the chance of mission failure. Some consequences of inadequate assessments are:

- ¥Cancellation**
- ¥De-scope of Instrumentation**
- ¥Loss of spacecraft/instrument**
- ¥Loss of resolution**
- ¥Reduced operational period**

The earlier the independent assessment is made, the more taxpayer dollars may be saved.



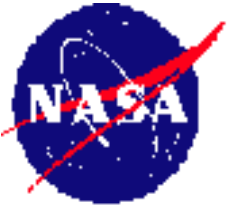


How Is NASA Costing The Proposals At Step One?

Using the technical information requested in Tables K-4, K-5, K-7, and K-9, plus any other data made available (K-6?), we will parametrically model the proposed mission. The parametrically modeled costs will be used as a part of the Step One evaluation process (Mission Implementation Criteria) to determine overall risk of the proposed mission to be within budget, on schedule, and with adequate technical and scientific content.



Clarification: Compliance Table K-3 specifies Table K-9 must be submitted in Step 1 and Step 2, but text in App. K, Section I, does not explicitly mention Table K-9 for Step 1. Table K-9 is required for both Step 1 and Step 2.



Definition: Risk Management (7120.5A)

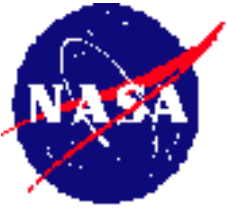
"An Organized, Systematic Decision-Making Process That Efficiently Identifies Risks, Assesses or Analyzes Risks, and Effectively Reduces Or Eliminates Risks to Achieving the Program Goals."

Step 1: Admit there are risks...

Step 2:

- Identify** what can go wrong
- Analyze and Assess** consequences
- Mitigate** the impacts; plan to prevent
- Track** progress
- Update Continuously**

<http://www.hq.nasa.gov/office/codeq/risk/risk.htm>



What Can Be Done To Lower Risk?

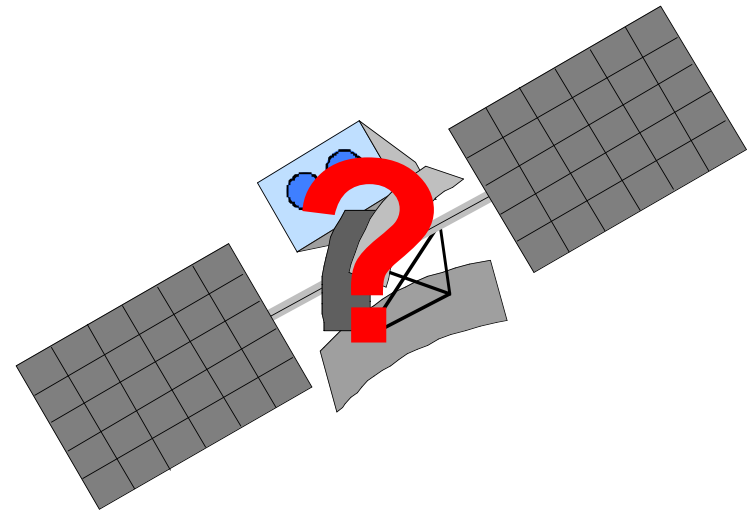
Provide requested data. Information can reduce uncertainty.

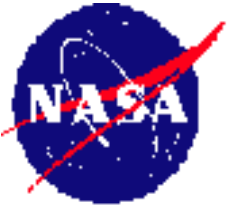
Plan adequate margins and contingencies

- Mass
- Power
- Data Transfer Rate
- Data Storage
- Funding Reserves
- Schedule Reserves (funded)

Anticipate adversity

Plan (and use) Peer Reviews





How Is Cost Risk Reduced?

Adequate Information About The Estimate

- Provide Requested Data**
- Write Down Assumptions**
- Provide Basis of Estimate**
- Show Calculations**
- Be Consistent and Traceable**

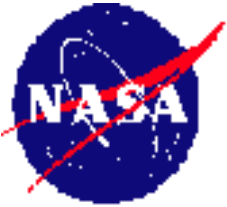
Adequate Funding Reserves

- Bottoms-Up Allocations, Based On Risk**
- Project Phase Specific**

Adequate Schedule Reserves

- Along Critical Path**
- Funded (“marching army”)**

Tracking And Control (Earned Value...)



Proposal Phase Risk

One of the biggest risks at this stage is that the proposal will not be selected. Some suggestions to prevent rejection:

—Provide ALL requested data

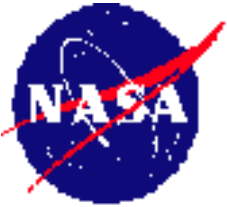
¥READ THE AO, COVER TO COVER!!!

¥Create a compliance matrix

¥Look for "show", "list", "provide", "explain", "describe", etc.

**—Get a good Project Manager and Systems Engineer right away -
They're experts in what needs to be done**

—Pay attention to proposal submittal instructions



Funding Profile

This profile is the TOTAL funding available for ALL ESSP-AO-3 activities. This profile is for planning purposes only as these funds have not been appropriated yet and are subject to change.

¥FY02: \$4.5M

¥FY03: \$27.9M

¥FY04: \$52.1M

¥FY05: \$76.6M

¥FY06: \$58.2M

¥FY07: \$20.0M

¥BTC: \$14.0M